**WHAT IS CLAIMED IS:**

1. An animal containment system including a receiver unit carried by the animal, said receiver unit comprising:

a GPS receiver for receiving satellite data;

a memory for storing a plurality of waypoints defining a boundary;

5    a stimulation circuit; and

a processor coupled with said GPS receiver and said stimulation circuit, said processor activating said stimulation circuit at a distance from said boundary, dependent upon animal positional variables when the animal is within said boundary.

2. The animal containment system of claim 1, wherein said processor activates said stimulation circuit at a variable distance from said boundary.

3. The animal containment system of claim 1, wherein said stimulation is applied based on animal positional variables comprising at least one of a distance from said boundary, a speed of travel within said boundary, an acceleration of travel within said boundary, and a direction of travel within said boundary.

4. The animal containment system of claim 2, wherein said stimulation circuit is configured to apply multiple stimulation levels, and said processor activates said stimulation circuit using said multiple stimulation levels.

5. The animal containment system of claim 3, wherein said stimulation circuit is an electrical stimulation circuit.

6. The animal containment system of claim 1, wherein said processor deactivates said stimulation circuit when the animal is outside said boundary.

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7. The animal containment system of claim 1, wherein said processor defines said boundary dependent upon said stored waypoints.

8. The animal containment system of claim 1, further including a DGPS receiver for receiving differential signals, said processor coupled with said DGPS receiver.

9. The animal containment system of claim 1, wherein said processor activates said stimulation circuit at a variable distance from said boundary.

10. A method of containing an animal within a defined area, comprising the steps of:

providing a receiver unit carried by the animal, said receiver unit including a GPS receiver for receiving satellite data; a memory; a stimulation circuit; and a processor coupled with said GPS receiver and said stimulation circuit,

storing a plurality of waypoints defining a boundary in said memory; and

activating said stimulation circuit at a distance from said boundary, dependent upon animal positional variables when the animal is within said boundary.

11. The method of containing an animal of claim 10, wherein said stimulation circuit is activated at a variable distance from said boundary.

12. The method of containing an animal of claim 10, wherein said stimulation is applied based on animal positional variables comprising at least one of a distance from said boundary, a speed of travel within said boundary, an acceleration of travel within said boundary, and a direction of travel within said boundary.

13. The method of containing an animal of claim 11, including the step of applying multiple stimulation levels using said stimulation circuit.

14. The method of containing an animal of claim 12, wherein said stimulation circuit is an electrical stimulation circuit.

15. The method of containing an animal of claim 10, including the step of deactivating said stimulation circuit when the animal is outside said boundary.

16. The method of containing an animal of claim 10, wherein said processor defines said boundary dependent upon said stored waypoints.

17. The method of containing an animal of claim 10, including the step of allowing the animal to reenter said area without activating said stimulation circuit after the animal has exited said area.